REMARKS

Favorable consideration and allowance of the present application is respectfully requested.

Claims 65-107, including independent claims 65, 100, and 104, are currently pending in the present application. Independent claim 65, for instance, is directed to a method of applying an image to a substrate. The method employs a first heat transfer material that comprises a first base layer, a first release layer overlying the first base layer, and a peelable transfer film on which the image is formed. The peelable transfer film comprises an adhesive layer overlying the base layer and a flow-resistant layer overlying the adhesive layer. The flow-resistant layer a flow-resistant layer does not flow appreciably at the transfer temperature. The method also employs a second heat transfer material that comprises a second base layer, a second release layer overlying the second base layer, and an overlay transfer film overlying the second release layer. The peelable transfer film is positioned between the substrate and the overlay transfer film, wherein the adhesive layer is positioned between the substrate and the flow-resistant layer. Heat and pressure are applied to transfer the peelable transfer film and the overlay transfer film to the substrate. The adhesive layer and overlay transfer film are melt-flowable at the transfer temperature, while the flow-resistant layer is not appreciably melt-flowable at the transfer temperature.

In the Office Action, claims 84 was rejected under *35 U.S.C. § 112*, 2nd paragraph. As shown above, the dependency of claim 84 has been corrected.

Independent claims 65 and 100 were rejected under *35 U.S.C. § 102(b)* as being anticipated by U.S. Patent No. 6,017,636 to Tada, et al. Additionally, independent claim 104 was rejected under *35 U.S.C. § 103(a)* as being obvious in view of Tada, et al. Tada, et al. is directed to five embodiments of a transfer system that employs a transfer layer formed from an emulsion-type urethane resin and preferably a ceramic micropowder. The second, fourth, and fifth embodiments disclose the use of two transfer sheets. Referring to Fig. 1, for instance, one embodiment of the transfer system of Tada, et al. employs a first transfer sheet A having the following layers:

(1) Urethane emulsion resin layer 2 containing a ceramic micropowder; and

(2) Release sheet 1.

The transfer system of Fig. 1 also employs a second transfer sheet B having the following layers:

(1) Release sheet 3

(2) Lower, heat-adhering resin layer 4;

(3) Middle layer 5; and

(4) Upper, heat-adhering resin layer 6 containing a pigment or micropowder.

According to these embodiments in Tada, et al., the image is disposed between the urethane emulsion layer 2 and the upper layer 6. Both the urethane emulsion layer 2 and the upper layer 6 are preferably formed from an urethane emulsion. As such, the urethane emulsion layer 2 coats the image on the substrate to help protect the image.

According to Tada, et al., the urethane emulsion layer 2 has a specific softening point such that it can prevent the flow of a toner layer during heat-pressing. Col. 5, lines 13-16. Specifically, the urethane emulsion is said to preferably have a softening point of 140°C to 220°C, while transfer preferably occurs at a temperature of 120°C to 180°C. (Cols. 4-5). Since these ranges overlap, the Office Action apparently concludes that the urethane emulsion layer 2 softens and flows at the transfer temperature. However, this conclusion contradicts the express teachings of Tada, et al. In fact, the entire purpose of Tada, et al. is directed to preventing melting and flowing of the toner layer through use of a non-flowable urethane emulsion layer 2. See, e.g., Col. 1, lines 26-31, lines 43-46; and Col. 5, lines 1-3, lines 13-16. Thus, Tada, et al. expressly requires that the urethane emulsion layer 2 does not flow at the transfer temperature in order to prevent influence of the toner layer.

Independent claims 65, 100, and 104 of the present application, in contrast, require the use of an "overlay transfer film" (including a layer thereof) that is "melt-flowable" at the transfer temperature. In this manner, the overlay transfer film may fuse or melt together with the "peelable transfer film" to form a matched "fused" laminate. Thus, Applicants respectfully submit that Tada, et al. fails to teach or suggest an overlay transfer film that is melt-flowable at the transfer temperature. As such, Applicants submit that independent claims 65, 100, and 104 are patentable over Tada, et al.

In any event, if the urethane emulsion layer 2 of Tada, et al. is interpreted to melt and flow at the transfer temperature, contrary to the express teachings of Tada, et al., then the other layers (i.e., the upper, middle, and lower layers) would also necessarily

flow at the transfer layer. Tada, et al. teaches that these layers are positioned between the substrate and the image to attach the image to the substrate. According to Tada, et al., the upper layer 6 becomes the background layer for the toner image layer after heat-transfer. The upper layer 6 is preferably formed from a urethane resin emulsion having a softening point of 140°C to 220°C. The lower layer 4 is preferably formed from a solvent-type urethane resin and polyester type resin, and softens and flows into the inner surface of the transfer object. The middle layer 5 functions to keep together the upper layer 6 and the lower layer 4, and is preferably formed from the same resin composition as the lower layer 4. Col. 6. Undoubtedly, Tada, et al. requires that both the lower and middle layers soften and flow at the transfer layer.

In rejecting the pending independent claims, the Office Action states that the upper layer is formed of resin with a softening point of 80 °C to 200 °C. The Office Action concludes that the embodiments having a softening point above the transfer temperatures of 120 °C to 180 °C would not soften and flow. However, in making this conclusion the Office Action fails to take into account all of the teachings of Tada, et al. Tada, et al. states that the urethane resin emulsion described with reference to the urethane emulsion layer 2 can be used as the resin of the upper layer 6. In fact, in each of the disclosed embodiments having two transfer sheets (the second, fourth, and fifth embodiments), the upper layer 6 has the same resinous composition as its respective urethane emulsion layer 2. Thus, the urethane emulsion layer 2 and the upper layer 6 would have nearly identical softening and melt flow properties as each other.

As such, if Tada, et al. is interpreted as disclosing that the urethane emulsion layer 2 softens and flows at the transfer temperature (as attempted by the Office Action and contrary to the express teachings of Tada, et al.), then the upper layer 6 would also soften and flow at the transfer temperature. Under this interpretation, Tada, et al. fails to teach or suggest melt-resistant layer that is not appreciably melt-flowable at the transfer temperature.

Alternatively, if the urethane emulsion layer 2 is interpreted to not flow at the transfer temperature (in accordance with the express teachings of Tada, et al.), then the upper layer 6 would also not flow at the transfer temperature. Under this interpretation, Tada, et al. fails to teach or suggest an overlay transfer film that flows at the transfer temperature, as discussed in greater detail above.

In either event, Applicants respectfully submit that Tada, et al. simply fails to teach or even suggest the specific combination of a melt-flowable overlay transfer film (overlying the image) and a flow-resistant layer (positioned between the image and the substrate), which is required by each independent claim of the present invention. The "flow-resistant layer" does not flow appreciably into the substrate upon transfer, although it may soften with heat. Such a flow-resistant layer may inhibit graying and loss of opacity of an image, particularly when used on dark-colored substrates. Moreover, the claimed peelable transfer film also contains an "adhesive layer" that can provide permanent bonding to a substrate after application of heat and pressure. Applicants respectfully submit that Tada, et al. simply fails to disclose or suggest all of the limitations of the method of independent claims 65, 100, and 104.

Applicants also respectfully submit that for at least the reasons indicated above relating to corresponding independent claims, the pending dependent claims patentably define over the references cited. However, Applicants also note that the patentability of the dependent claims certainly does not hinge on the patentability of independent claims. In particular, it is believed that some or all of these claims may possess features that are independently patentable, regardless of the patentability of the independent claims.

For example, none of the cited references teach or suggest that the melt flow index of a flow-resistant layer is less than the melt flow index of an adhesive layer, such as required in claim 83. Even further, the cited references completely fail to teach or suggest that the melt flow index of a flow-resistant layer is less than the melt flow index of an adhesive layer by a factor of at least 10, much less by a factor of at least 1000. As such, Applicants respectfully submit that claims 83-85 are patentable over the cited references.

Thus, for at least the reasons set forth above, it is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Chan is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this Amendment.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully submitted,

DORITY & MANNING, P.A.

Alan R. Marshall
Registration No.: 56,405

DORITY & MANNING, P.A.
P.O. Box 1449
Greenville, SC 29602-1449
Phone: (864) 271-1592
Facsimile: (864) 233-7342

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